

from \$1,747 to \$48,782 per patient year. Per patient episode, direct costs associated with OIC ranged from \$54 to \$11,705. This was further supported by a large international study which reported significantly more physician visits and alternative care provider visits among patients with OIC than those without OIC. Two studies reported on a subgroup of patients with OIC who failed to respond to laxatives; these patients reported higher direct costs than patients who had a response to laxatives. **CONCLUSIONS:** The management of OIC is associated with potentially significant health care resource utilisation and financial burden. Patients with OIC incur higher direct health care costs than those without OIC and costs are increased further if patients with OIC have failed to respond to laxatives. There remains a paucity of data on health care resource utilisation in OIC and further research into the economic burden of OIC is needed.

PGI14

ECONOMIC AND QUALITY-OF-LIFE BURDEN OF MODERATE-TO-SEVERE IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C) IN SPAIN: THE IBS-C STUDY

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OBJECTIVES: This study is the first study to assess the burden of IBS-C in 6 European countries (France, Germany, Italy, Spain, Sweden, UK). Here we present the results for Spain. **METHODS:** Observational, retrospective-prospective (6 months each) study in patients diagnosed with moderate-to-severe IBS-C in the last five years (Rome-III criteria). Moderate-to-severe IBS-C was defined as IBS-Symptom Severity Score (IBS-SSS) ≥ 175 . Quality-of-life (QoL) was assessed with EuroQoL-5D (EQ-5D) and IBS-QoL. **RESULTS:** 112 patients were included (58% severe, mean age (\pm SD) 46.8 \pm 13.7 years, 86% female). At baseline, symptom severity (IBS-SSS; severe > 300) was 315.4 \pm 82.9; presenteeism (WPA: IBS-C questionnaire; mean (\pm SD) % time in week prior to inclusion): 32.3 \pm 27.2; absenteeism: 6.1 \pm 15.8; work productivity loss: 29.2 \pm 27.5; and daily activity impairment 39.6 \pm 27.2. Mean IBS-QoL was 41.0 \pm 21.2, (scale: 0-100 [best-to-worst]), and the most affected domains were “food avoidance” (mean: 60.4) and “health worry” (54.6). Mean EQ-5D was 57 \pm 21 (scale: 0-100 [worst-to-best]) and 86% and 63% of patients reported moderate-to-severe problems in pain/discomfort, anxiety/depression respectively. The most prevalent symptoms were: constipation (84%), abdominal pain (80%), abdominal distention (80%) and bloating (59%). Over the year, 88% of patients consulted a primary care physician, and 82% a gastroenterologist; mean (95%CI): 3.8 and 2.3 visits, respectively. 20% of patients required emergency department visits or hospitalization (mean stay: 1.5 (0.6-2.4) days). 58% of patients underwent a diagnostic test (mean: 2.4 (1.8-2.9)). 85% of patients took pharmacological medication (80% took some pharmacological medication for their IBS-C) 30% received complementary therapies. After 6 months of follow-up, only 1 in 5 patients had no or mild symptoms. The mean (95%CI) annual direct cost for the Spanish National Health System (NHS) was 1067€ (730-1447) and the mean cost for the patient was 568€ (333-841). 13% of patients took sick leave (mean: 6.3 times; mean duration: 52 days) and 28% had productivity losses (mean: 55 hours). Mean indirect costs were 1362€ (313-2866). Total costs amounted to 2997€ (1799-4515)/year. **CONCLUSIONS:** Moderate-to-severe IBS-C has a great impact on patient QoL, productivity, and health care resource utilization.

PGI15

HOSPITALIZATION COSTS ASSOCIATED WITH LIVER CIRRHOSIS

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OBJECTIVES: The burden and cost of liver disease is known to be substantial, but accurate data on this subject is still scarce in Portugal. So far most estimates are obtained from diagnosis-related groups (DRGs) associated with hospital financing and from expert panels. In this analysis we aimed to calculate the real costs associated with hospital admissions due to liver cirrhosis (LC) in a large hospital. **METHODS:** All hospitalizations in the gastroenterology department from a tertiary hospital in Portugal (Centro Hospitalar Lisboa Central) during 2012 were analyzed. Patient level data was used to retrieve relevant demographic and clinical information. Costs assumed to be specific for LC admissions, namely medication, imaging and other techniques, were estimated directly. Department-specific hospital accountancy was used to include the remaining hospital costs associated with these hospitalizations. **RESULTS:** A total of 644 admissions were analyzed, from which 135 (21.0%) were due to LC, corresponding to 82 patients. 74.4% (n=61) were males, median age was 55 years. The main cause of LC was alcohol (58.5%). In the admissions due to LC, average length of stay (LoS) was 15.3 days and total mean hospitalization cost was 3,979.5€. For all analyzed admissions, average LoS and mean total cost were 8.1 days and 2,323.8€, respectively. Average cost for medications in admissions for LC amounted to 492.7€, compared to 228.7€ for all admissions. Within admissions for LC, costs were not significantly different for hospitalizations with or without hepatocellular carcinoma. **CONCLUSIONS:** The estimated overall cost of a hospital admission for LC in a gastroenterology department was superior to the average value of hospitalizations for all causes, and approximately twice the official DRG value. This study highlights the current economic burden of liver cirrhosis faced by a tertiary hospital and the possible need to revise some of the assumptions used for financing Portuguese hospitals.

PGI16

THE COST OF IRRITABLE BOWEL SYNDROME (IBS) IN ENGLAND

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OBJECTIVES: The NHS is faced with increasing cost pressures that make the efficient use of resources paramount. Patients with IBS may consume considerable NHS resource through inpatient and outpatient visits, diagnostic tests and treatment. This study aimed to estimate admission costs and primary care prescribing

costs associated with the treatment of IBS in England. **METHODS:** Hospital Episode Statistics (HES) data for 2012-13 for all clinical commissioning groups (CCGs) in England were analysed to calculate the tariff cost of IBS. IBS diagnosis codes were included in the analysis. Prescribing data and cost (PACT) data for 2012-13 were also analysed. **RESULTS:** During 2012/13 there were 1,217,993 outpatient appointments in gastroenterology and colorectal surgery specialities, with a total tariff cost of £365,868,937. Despite this, only 1,982 patients were recorded with IBS-specific codes, with a total estimated tariff cost of £812,336. In addition, 28,849 patients were recorded with IBS-related symptom codes at a cost of £11,002,874. There were also 658,698 diagnostic lower GI endoscopies at a tariff cost of £169,676,704. Of these, 323,752 (49%) had no further follow-up in secondary care in the subsequent 12 months. PACT data indicated that £44,977,959 and £25,582,752 was spent on selected laxatives and antispasmodics, respectively, commonly used to treat IBS in primary care. **CONCLUSIONS:** Despite being poorly clinically coded, it is clear that IBS places a significant cost burden on the NHS. Notably, 49% of patients seen for lower GI endoscopies had no further activity provided by the Hospital Provider Trust as an inpatient or outpatient over the subsequent 12 months, implying functional symptoms. Better diagnosis and subsequent management of IBS within a primary care setting may provide direct savings in the cost of IBS management. This study was financially supported by Almirall. Hospital Episode Statistics Data were provided via Harvey Walsh Ltd under commercial reuse licence.

PGI17

A COST OF CARE MODEL FOR INFLAMMATORY BOWEL DISEASE WITH A UK NHS PERSPECTIVE

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OBJECTIVES: There are an estimated 620,000 patients with inflammatory bowel disease (IBD) in the UK. The rising incidence of IBD combined with its incurability has significant cost implications, with the National IBD Audit estimating that cost to the National Health Service (NHS) exceeded £1 billion in 2010. The aim of this cost of care model was to calculate the annual cost per patient of treating ulcerative colitis (UC) and Crohn's disease (CD) from an NHS perspective, and to enable areas of potential cost savings to be explored. **METHODS:** The cost of IBD was calculated by summing the costs of treatment, treatment side effects and disease-related complications, accounting for the proportions of patients incurring these costs. The model included detailed costs for each treatment (eg. brand of mesalazine), major side effects for each treatment (eg. pancreatitis from thiopurines) and complications (eg. pyoderma gangrenosum). Default input values for costs, the percentage of patients receiving each treatment, and the percentage of patients experiencing side effects or complications were determined from national sources and published literature. However, the model permitted the user to input local or alternative data (eg. to reflect brand preferences for oral mesalazines) and conduct scenario analyses. **RESULTS:** Using default input values, the annual cost of treating any UC patient was estimated to be £3,084. For a UC patient in remission, in relapse with mild-to-moderate UC or in relapse with severe UC, annual cost per patient was estimated to be £1,693, £2,903 and £10,760, respectively. The annual cost for any CD patient was estimated to be £6,156 (£1,800 for patients in remission; £10,513 for patients in relapse). **CONCLUSIONS:** IBD is a costly, chronic condition and this model facilitates calculation of annual costs per UC and CD patient. The models' customisability will help hospitals to identify areas where savings could be made.

PGI18

HEALTH CARE COST ASSOCIATED TO CONSTIPATION PREDOMINANT IRRITABLE BOWEL SYNDROME IN SPAIN

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OBJECTIVES: To estimate health care resource use and costs associated with the management and treatment of constipation predominant irritable bowel syndrome (IBS-C) in Spanish clinical practice. **METHODS:** The 2011 primary care (PC) IASIST database, which includes 3,678,522 clinical charts corresponding to PC sites from the National Health System (NHS), was used to estimate the number of patients with IBS-C (identified by a combination of ICD code and prescription of IBS-C drugs) and obtain data on the number of hospitalizations (service, frequency and duration), scheduled and emergency visits to PC, referrals to specialist care, and IBS-C treatments prescribed and dispensed in retail pharmacies and their associated costs. Based on data from IASIST database and unit costs retrieved from the e-Salud database, health care costs associated with IBS-C from the NHS perspective were calculated. **RESULTS:** A total of 5,649 IBS-C patients were identified in the database, corresponding to a prevalence of 0.15% of patients attending PC. Total costs associated with IBS-C in the sample were estimated to be €4,755,725; highest costs were associated with PC visits (€2,791,725, corresponding to 58.7% of total IBS-C costs). This high cost of PC visits is explained by the high number of visits by IBS-C patients (17.4 visits annually per patient). Costs of PC visits are followed by hospitalization costs (€610,859, 12.8% of total cost), medical visits to specialists (€556,164, 11.7%) and emergency room visits to PC (€491,142, 10.3%). Costs of pharmacological treatment (€305,707) represented only 6.4% of total IBS-C costs. **CONCLUSIONS:** The low prevalence of IBS-C observed may be due to the under-registration or under-diagnosis of IBS-C. Costs associated with the management of IBS-C are driven mainly by the high number of PC visits, which may be associated with the current unmet medical needs in IBS-C.

PGI19

ECONOMIC EVALUATION OF VARIOUS STRATEGIES FOR ANTIVIRAL THERAPY FOR PREVIOUSLY TREATED PATIENTS WITH CHRONIC HCV GENOTYPE 1 INFECTION

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